



БАЙГАЛЬ ОРЧИН,  
АЯЛАЛ ЖУУЛЧЛАЛЫН ЯАМ



TA-6883 REG: Accelerating Gender Equality in  
East Asia for an Inclusive and Green Recovery

# TOWARDS A CIRCULAR ECONOMY IN TOURISM SECTOR: A COMPREHENSIVE ASSESSMENT

SUMMARY REPORT



# ACKNOWLEDGEMENTS

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The assessment team would like to express its gratitude to:

- Tsolmon Begzsuren, senior specialist in social development and gender issues at the Asian Development Bank, and Choikhand Janchivlamdan, the regional project coordinator. Their invaluable guidance and advice significantly contributed to every stage of the research.
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- We also extend our heartfelt thanks to the small and medium-sized business owners. Their active participation in the study enriched our understanding as they generously shared their stories and experiences.

Consulting Service Team

# ABOUT THE REPORT

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The collaborative consulting service team comprising Independent Research Institute of Mongolia, Mongolian Sustainable Finance Association, and Development Solutions NGO is actively engaged in the execution of the project titled “Consultancy Service to Develop Capacities on Circular Economy for MSMEs in Mongolia”. The project, commissioned by the Ministry of Environment and Tourism and funded by the Asian Development Bank, is conducting from November 2022 to June 2025.

Within the scope of this consulting service, our team is dedicated to analyzing the policy environment and legal frameworks that support the circular economy within the tourism sector. Our focus extends to assessing both the opportunities and challenges associated with the adoption of circular economy principles. The ultimate goal is to compile a comprehensive assessment report.

This “Summary Report” serves as a condensed overview of the key findings and recommendations derived from analysis and assessments conducted as part of the larger “Comprehensive Assessment” report.

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## Disclaimer

This assessment was carried out within the regional project «TA-6883 REG: Accelerating Gender Equality in East Asia for an Inclusive and Green Recovery» funded by the Asian Development Bank.

The content and opinions contained in this report do not represent the position of the ADB or the MET.

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## ABBREVIATIONS

CE	Circular Economy
CP	Clean production
FI	Financial institutions
MNCCI	Mongolian National Chamber of Commerce and Industry
MOFALI	Ministry of Food, Agriculture, and Light Industry
MSMEs	Micro, small, and medium-sized enterprises
NGOs	Non-Governmental Organizations
RE	Resource efficiency
RECP	Resource efficiency and Clean production
SMEs	Small and medium-sized enterprises



БАЙГАЛЬ ОРЧИН,  
АЯЛАЛ ЖУУРЧИАЛЫН  
ЯАМ



# ТОЙРОГ ЭДИЙН ЗАСАГ БА Н ЧИГЛЭЛД БИЧИЛ, ЖИЖ ЭРХЛЭГЧДИЙГ ЧАДАВХЖУУЛА

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2022/11/29

## ONE. INTRODUCTION

# ONE. INTRODUCTION

The Asian Development Bank (ADB) is funding regional knowledge and technical assistance project in China and Mongolia to support the gender-inclusive green business after the COVID-19 pandemic. Under the financial support, a consulting service on “Building the capacity of micro, small and medium-sized enterprises (MSMEs) in the direction of circular economy (CE) and green business” is being implemented to support gender equality by strengthening knowledge and capacity about CE and green technology. The consultancy service will help women-owned and women-managed MSMEs involved in food and packaging activities in the tourism sector recover from the post-COVID-19 crisis and achieve a sustainable green recovery. The consultancy project has three main components: See **(Figure 1)** for details of project components.

**1. Comprehensive Assessment:** Analyze the policy environment and legal acts supporting the CE, conduct a

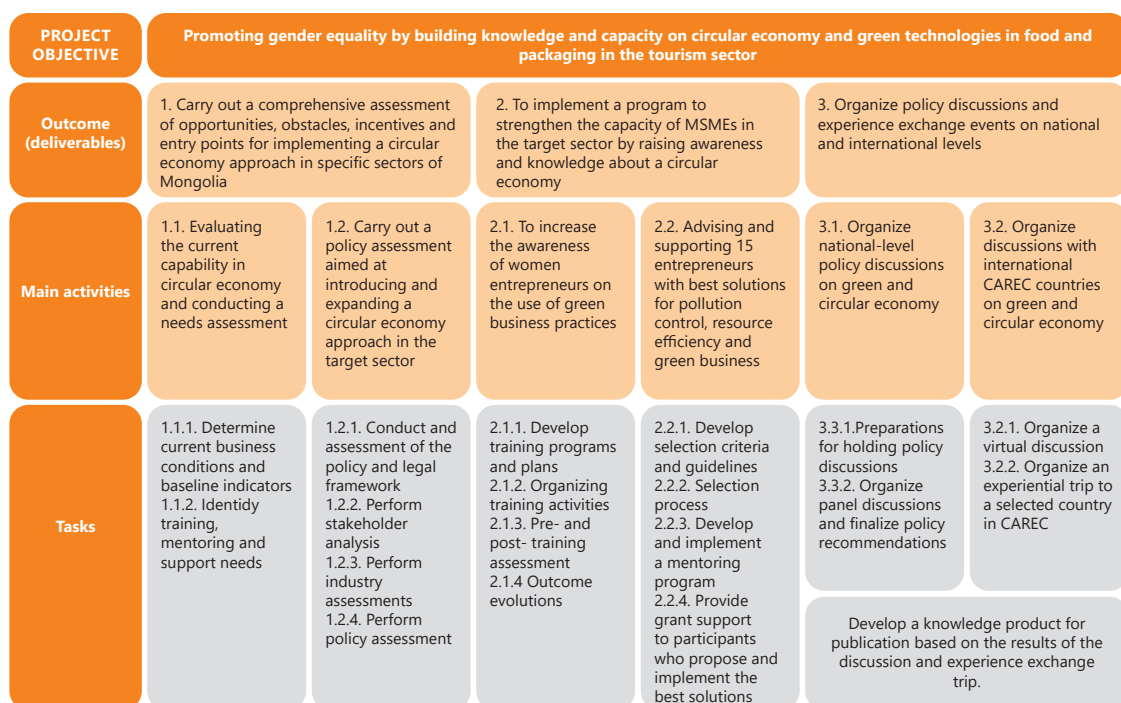
comprehensive assessment covering women entrepreneurs in the target sectors who have been severely affected by the COVID-19 crisis to determine their needs and readiness, opportunities and difficulties as well as stakeholder engagement for introducing the CE and develop a report;

**2. Capacity-building program:** Based on the results of the Comprehensive Assessment, develop and implement a program aimed at improving the understanding and knowledge of the circular economy and strengthening the capacity of the target sector MSMEs;

**3. Policy dialogue:** Based on the results of the above two activities, organize best practice and information-sharing events and policy dialogues at the national and international levels.

The Comprehensive Assessment consists of three main areas Policy Analysis, Readiness Assessment, and Stakeholder Assessment.

Figure 1. Project components & logical framework



## TWO. BACKGROUND

### Context of environmental issues of the tourism sector in Mongolia

The tourism industry is a significant contributor to the country's economy, accounting for 6.7% of GDP and 7.2% of employment, generating approximately 1.8 trillion MNT (around 670 million US dollars) in income. Similar to other economic sectors, tourism activities also generate waste, but the problem is more challenging as the waste is produced in remote and pristine places as well as tourists are likely to prefer more sustainable travel. The tourism industry in Mongolia is influenced by seasonal variations, with 70% of foreign tourists visiting during the 2nd and 3rd quarters of the year (April-September) in 2019. Additionally, a substantial portion of domestic travelers rely on private cars, opt for tent-based accommodations, and camp in non-designated areas, leading to environmental strain, particularly in terms of waste generation, which poses challenges in waste collection and treatment. It is estimated that domestic tourists generate approximately 2,500 tons of waste annually, while foreign tourists contribute around 4,000 tons. However, the existing infrastructure and tourism service providers are not adequately equipped to handle the influx of travelers and the waste generated during peak seasons.

Of the 2.2 million tons of secondary raw materials produced annually in Mongolia, locally generated waste accounts for 58.2% of the total waste, with Ulaanbaatar contributing 41.8%. The recycling rate is relatively low, with only 3-5% of total waste and 8.9% of Ulaanbaatar's waste being recycled. Plastic waste recycling, in particular, stands at a mere 6%. As of 2021, in Mongolia, there are 40 waste recycling plants, over 160 separate processing points, and a workforce of more than 1,500 employees. The recycling industry is categorized into rubber and plastic products, with a production volume of 14.1 billion MNT and a sales volume of 15.5 billion MNT in 2020, marking a notable decline compared to the previous year. When considering the waste generated by tourists, it is estimated that domestic tourists produce 2,484.14 tons of waste annually, while foreign tourists contribute 4,041.10 tons. Mongolia faces challenges in processing food waste and glass due to the lack of appropriate technology and industry. However, there is progress in processing items such as plastic bottles, plastic bags, and hard plastic bottles, with an 8.9% recycling rate in this category.

### The current situation of CE in the tourism sector of Mongolia and the industry challenges

The status of CE in Mongolia's tourism sector, based on an assessment of 742 MSME entrepreneurs across various industries, reveals that the food and beverage manufacturers in the tourism sector lack awareness and commitment to environmentally friendly practices. They do not have established goals, plans, or budgets

for CE implementation, and key performance indicators for CE are absent. Overall, micro, small, and medium-sized enterprises (MSMEs) show a tendency to demand environmentally responsible raw materials and ingredients from suppliers, rejecting items that are unnecessary, uneconomical, or environmentally harmful. There is good

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internal implementation of maintenance and routine cleaning at appropriate levels within these sectors, yet the ability to reduce negative environmental and social impacts through technology is weak. There is also limited experience in product redesign and rethinking, especially among MSMEs. There is a lack of experience in reuse, repurposing, and manufacturing and when it comes to waste collection, sorting of waste, and recycling systems, beekeeping is the most engaged sector followed by food and beverage manufacturers.

The lack of understanding of CE principles, coupled with a shortage of human resources, funding, and technological capacity, has resulted in continued waste generation in the food, water, and packaging supply chains of the tourism industry. Current waste reduction strategies primarily focus on recycling, which is the final step in the CE process. Challenges remain in sorting, transporting, and disposing of waste in remote areas. Despite these challenges, suppliers in the tourism sector, recognizing their nature-based services, are making efforts to implement CE principles. Tourist camps, in particular, are seeking environmentally friendly, low-waste, and resource-efficient solutions. Some camps engage in bottle recall practices and provide waste management training to their employees at the start of the tourist season.

Entrepreneurs in the tourism industry, predominantly consisting of small and medium-sized enterprises (SMEs), confront significant obstacles when applying CE practices to align with changing tourist preferences. A readiness assessment conducted aimed at empowering MSMEs in the direction of CE and green business revealed the primary challenges encountered by these entrepreneurs when embracing

CE encompass (1) a shortage of economic and financial resources and limited support access, (2) insufficient investment, (3) limited information related to recent advancements in eco-friendly technologies and global, regional, and national CE trends, and (4) the absence of feasibility studies, designs, strategies, and implementation solutions, coupled with inadequate information regarding CE, its implementation design, strategies, and solutions. The Government of Mongolia has provided low-interest loans, introduced environmentally friendly green loans to MSMEs, and applied discounts, subsidies, VAT, customs tax, and certain percentage exemptions from income tax mainly to grain, vegetable farming, and animal husbandry sectors. However, the packaging and food industry has seen relatively modest discounts and incentives for CE practices.

According to the assessment conducted by this project, only 6.5% of business owners in the target sectors are well-informed about CE, and 66.8% have heard of it. Most of them possess a limited comprehension of CE, with a stronger emphasis placed on waste management. Although there is significant interest in implementing CE, a lack of knowledge and the misconception that it requires substantial financial resources hinder concrete action. Despite the high interest in adopting CE best practices, sources of knowledge and information are unclear and not easily accessible. This information gap limits opportunities for collaboration and waste management improvement with businesses in other sectors.

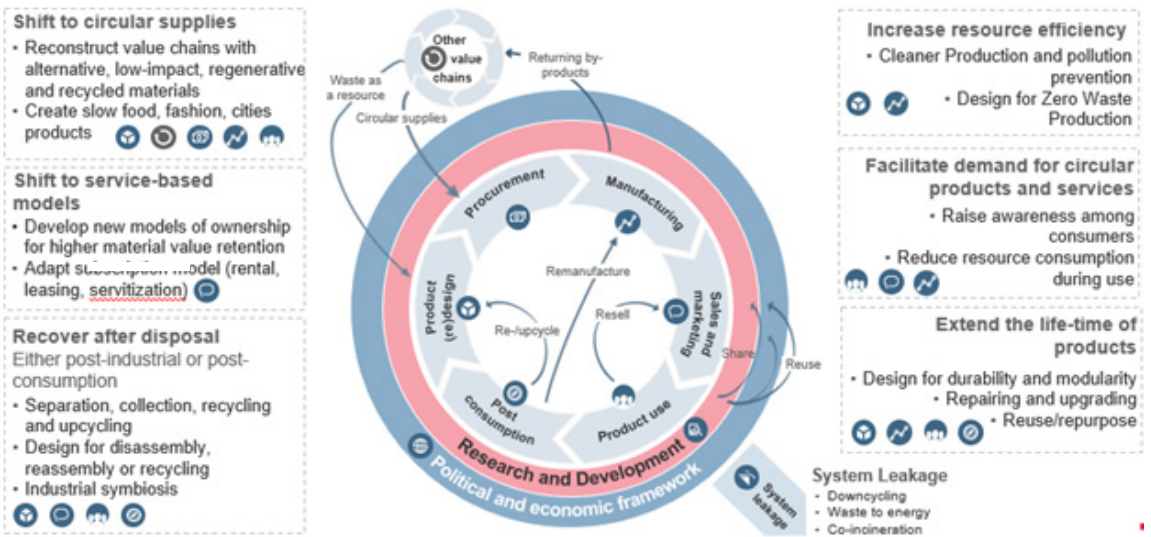
Policies and support for CE in Mongolia are notably lacking, with no provisions or tools mentioned for SMEs and service providers. The “National Voluntary Report” to the

United Nations highlights minimal progress in reducing the environmental impact of production and activities. CE support provisions are absent from the MSMEs Support Policy. Additionally, there are no government incentives or tax exemptions for waste-related activities such as collection, transportation, and recycling. Weak coordination and cooperative management among government agencies, the private sector, and professional organizations further hinder efforts to reduce waste generation.

The main basis of this research methodology is the following CE model. Developing CE strategy requires a combination of environmentally friendly solutions and product life cycle concepts. Based on the analysis of the available models for the introduction of CE, the following six strategies can be named. It includes:

- Increase resource efficiency
- Extend the life-time of products
- Shift to service-based models
- Recovery after disposal
- Shift to circular supplies
- Facilitate demand for circular products and services

Figure 2. A comprehensive model of CE strategy and enabling policy instruments





## THREE. POLICY ANALYSIS

### THREE. POLICY ANALYSIS

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The primary goal of the policy analysis is to determine the alignment of the government's policies and development goals in the tourism sector, especially the food and packaging sectors in connection with CE approaches and to provide general information to decision-makers by identifying CE-enabling policy instruments. Mongolia has a policy framework for green development, such as the five-year development guidelines for 2021-2025, and the Action Plan of the Government of Mongolia for 2020-2024. Although CE was not explicitly mentioned, some aspects of CE were included, such as the promotion of environmentally friendly, efficient use and advanced green technology through economic incentives, shifting gradually from public procurement to green procurement as well as creating a private sector support system, among others. To date, the release of official integrated reports and statistics about the execution of the 'Vision-2050 long-term development policy document has not been commenced.

Thus, Mongolia has the potential for a CE-enabling policy instrument, contingent on the establishment of clearer criteria and a robust regulatory framework. One is the green procurement policy in government practices, aiming to achieve 20 percent green procurement as part of its five-year development plan from 2021 to 2025, as outlined in "Vision-2050". However, there are gaps in the regulatory and policy environment for CE initiatives. The strategic plan of the Public Procurement Office for 2022 lacks specific objectives and operational strategies related to sustainable and green procurement. While criteria for green procurement are available online for items such as writing paper, printer ink, and lightweight concrete blocks, they have not

been integrated into the electronic public procurement system. And, the progress toward the 20% green procurement target has not yet been reported. Additionally, the Procurement Department of the Ministry of Finance is in the process of developing green criteria for 11 products to support green government procurement, but detailed information is currently unavailable due to pending regulatory approval.

Mongolia's Environmental Target Program is one of seven development programs outlined in the 2020 Law on Development Policy, Planning, and Management. The Law on Support of SMEs emphasizes government support for adopting technological advances and integrating scientific research into production, taking into account various factors, and penalties for companies using harmful technologies or causing ecological damage. However, existing SME policies in Mongolia lack integration with CE principles.

Another program, the so-called "Green Loan Fund", is an important CE-enabling policy instrument that is greatly accessible to MSMEs and offers low-interest loan products that are environmentally friendly, reducing air and environmental pollution and heat loss, and supporting the purchase of energy-efficient products and electric heaters to individuals, private sector enterprises. For loans dedicated to soil pollution reduction endeavors like bio-toilets and small-scale treatment facilities, the annual interest rate stands at 2%.

**The identified policy gaps are as follows:**

1. The comprehensive CE components integrated into the environmental target program have not yet received approval, which is causing delays in industry support for CE initiatives.
2. Transparency issues exist regarding the

operations of the National Program on Reducing Air and Environmental Pollution, including the 2020-23 plan, government-reported implementation reports, and the assessment report for the completed first phase in 2019.

3. While policies supporting SMEs and economic instruments like discounted loans are effectively in place, there is a gap in providing incentives to promote the gradual adoption of CE practices, such as green production and waste management.

Recommendations include transparently reporting the impact of subsidized green loans through the National Program on Reducing Air and Environmental Pollution framework, setting green product criteria for procurement, and fostering collaborative efforts with the private sector, professional associations, and citizens to establish a green labeling system promoting eco-conscious consumer choices and sustainability.

In the tourism sector, there is a total of 15 MNS Standards that tourist camps and resorts must follow depending on their features and service types. Two standards contain CE focus. The "General Requirements for Resorts and Tourist Camps (MNS 6043:2019)", establishes essential criteria for resorts and tourist camps accommodating more than 20 guests per stay, for instance, the minimum distances from facilities to natural and cultural heritage sites or from river protection zones, water sources, and forest reserves. These establishments' activities should have a neutral or positive environmental impact and a minimum of 20% of energy consumption sourced from renewables. And, "Housing for Eco-Tourism in a Protected Area - General Service Requirements (MNS 6426:2013)" applies

to organizations and individuals offering tourist services within protected areas on their mandatory responsibilities to employ equipment like waste combustion-based heat generation systems, gas engines, and cogeneration. 30% of energy consumption should be derived from renewable sources. In addition, the policy focuses on sustainable transportation for short trips using bicycles and carts, replacing single-use items with reusable alternatives, promoting environmentally friendly technologies, distributing awareness materials for water and electricity conservation, waste reduction, and greywater recycling. Furthermore, waste collection points are mandated to ensure the proper separation of waste into 3-4 distinct types to prevent soil contamination..

The Government of Mongolia also approved the "Procedures for the Development and Implementation of Strategic Plans" (Resolution No. 216 of 2020) to support the development and recovery of the tourism industry. The plan aims to support sustainable development and cooperation in tourism, guided by the principles of sustainable development, with specific results targeted for achievement by 2024. However, it has not received official government approval through a decree or ministerial order, and there is a lack of publicly available official reports or monitoring and evaluation documents related to the plan and its implementation

**The identified tourism policy gaps are as follows:**

1. The definition, standards, and specific criteria for sustainable tourism remain ambiguous.
2. There is an absence of training and awareness programs regarding sustainable tourism and CE practices, with no approved state budgets

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allocated for such initiatives.

3. While environmental impact studies are conducted, there is insufficient coordination with regional and local planning, resulting in weak oversight of implementation.

In the food sector, the Strategic Plan for Food, Agriculture, and Light Industry (2021-2024) includes few provisions related to economic and green development. Additionally, the Ministry of Agriculture and Food has endorsed a certification label for products produced using appropriate agricultural practices, registered as intellectual property within the organization. Within the framework of the Organic Food Policy, organic food production standard serves as a monitoring and regulatory tool to promote waste prevention and reduction. Certification and labeling of organic products function as communication tools to bolster the supply of environmentally friendly products. Moreover, incentives for organic producers can serve as economic tools to support the transition to green energy production. It is crucial to develop a comprehensive policy for supporting and incentivizing agriculture, aligning it with the sector's ultimate objectives and directing its implementation accordingly.

Gaps in the policy include the absence of support for organic production in national initiatives like "Food Supply and Security" and the "10-billion program." These initiatives also do not align to reach 5% organic production in the food and agriculture sector by 2030. Moreover, there is a notable absence of measures, either direct or indirect, to support the development of the green economy within the laws and programs implemented in the sector. In the packaging sector, Mongolian

President's Decree No. 104 aims to enhance cooperation among relevant organizations and prioritize packaging and labels for safety. The President's Office of Mongolia and the Ministry of Food, Agriculture, and Light Industry (MOFALI) offer discounted loans to support food packaging production, although the incentive lacks detailed definitions. Mongolia has implemented stringent regulations to reduce plastic waste through Government Resolutions No. 189 and No. 199, which ban the import, production, and use of plastic film bags thinner than 0.035 mm for packaging in trade and services. While domestic factories face effective supervision, there is a need for enhanced customs monitoring to prevent the entry of prohibited plastic bags. However, the implementation, detailed guidelines, and provisions within the legal framework are currently lacking.

The current approach to packaging in Mongolia lacks clear definitions for "green" and "biodegradable" packaging, and there is a lack of systematic data collection on recycled packaging percentages. Additionally, there is insufficient information on technology and equipment in the sector. Given the sector's reliance on imported raw materials, aligning measures with the 2021-2025 Government Action Plan to stimulate domestic packaging production is crucial.

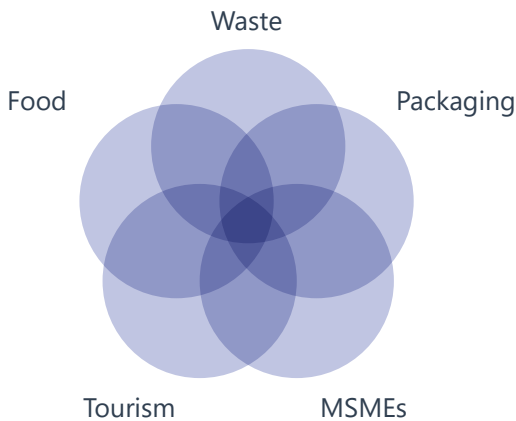
Policy gaps include the absence of incentives or customs and VAT exemptions for waste recycling enterprises, pending approval of regulations on eco-payments, limited provisions for promoting technological innovation and waste-free consumption, and a lack of support or incentives for waste recycling enterprises. Furthermore, there is no financial or loan support for enterprises in this sector.



## **FOUR.** READINESS ASSESSMENT

## FOUR. READINESS ASSESSMENT

### 4.1 ASSESSMENT METHODOLOGY



The Readiness assessment presents findings from an assessment of producers and service providers in the food, beverage, and accommodation value chains of the tourism industry for adopting CE strategies and approaches.

The assessment will explore cross-sectoral issues as it examines circular economy issues related to food and packaging in the tourism industry. As it is limited to go into each detail of the sectoral issues, we will pay more attention to sectoral issues and opportunities in the introduction of CE in food, packaging, and waste in the tourism sector. **(Figure 3)**

Here are the main MSMEs that are considered target MSMEs in our assessment:

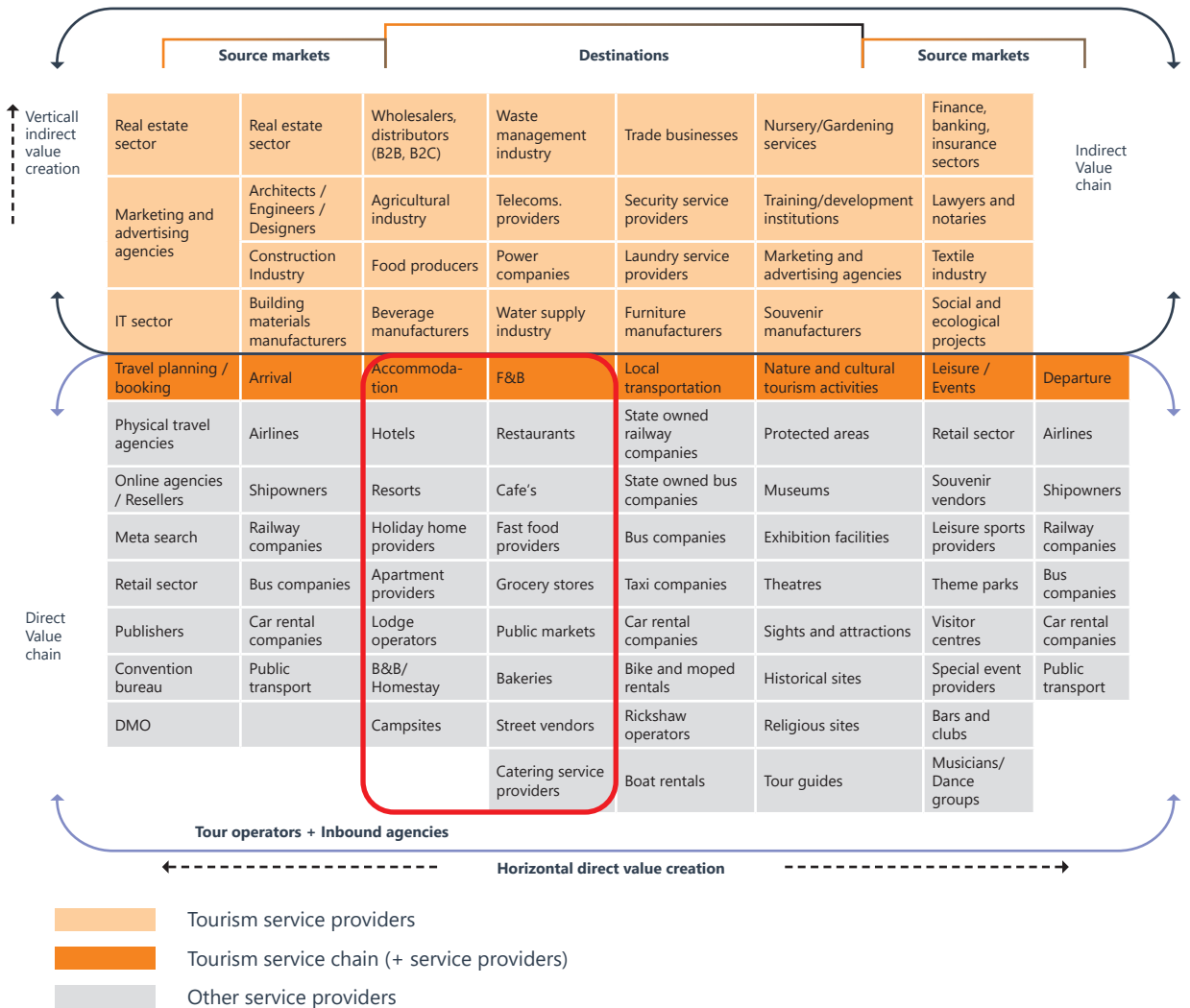
- **MSMEs in the accommodation:** Hospitality services encompass a wide range of businesses that directly serve tourists, such as hotels, resorts, guesthouses, and other types of accommodations. These businesses provide lodging, dining, and related services to ensure a comfortable stay for tourists.

- **MSMEs in the Food and Beverage providers:** Restaurants, cafes, bars and food service providers contribute to the tourism sector by offering dining options and culinary experiences to tourists. They showcase local cuisine, provide diverse food and beverage options, and contribute to the overall gastronomic experiences of travelers. In addition, this includes providers that offer any products or services to tourists and travelers where packaging is utilized.

For the Readiness assessment, the target groups were categorized into three primary segments, in the first and second groups belong to the supply side, and the third group considered as the consumption side:

1. The producer group, consists of food, beverage, and packaging producers, as well as food production establishments such as canteens and restaurants that procure materials for meal and beverage preparation. This group included 222 MSMEs.
2. The intermediary consumers or service provider group, comprising 178 MSMEs from accommodation providers (hotels, tourist camps, etc.), food and beverage service providers (canteens, restaurants, nightclubs, street food vendors, coffee shops, etc.), and food shops.
3. The end-consumer group, which consists of travelers. A total of 100 travelers participated in the assessment and interviews.

Figure 3. Value chain in the tourism sector



It targeted both the supply and demand side. For the **Supply-side**, the readiness assessment encompassed 400 MSMEs operating in the tourism, food, beverage, and packaging sectors within Ulaanbaatar, Arkhangai, and Khuvsgul provinces. These enterprises were categorized into two groups. The first group included 222 MSMEs representing food, beverage, and packaging producers, referred to as the producer group or manufacturer group. The second group comprised 178 MSMEs categorized as “service providers” or “intermediary consumers” engaged in food services

(canteens, restaurants, etc.), accommodation providers (hotels, tourist camps, etc.), food and beverage service providers (nightclubs, street food, coffee shops, etc.), and food shops.

The readiness assessment comprises two parts. **The first assesses** MSMEs’ readiness to adopt CE strategies and solutions, covering 11 elements: (i) assets (buildings, structures, real estate), (ii) technology and equipment, (iii) finance/capital, (iv) business culture focused on sustainability, (v) business image and recognition, (vi) human resource

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competence, (vii) business sustainability strategies and policies, (viii) research and development capabilities, (ix) readiness to establish partnerships and cooperation, (x) availability related to use the raw materials (particular to raw material intensive consumption), and (xi) accounting capacity and readiness (unit product cost, efficiency calculation, material consumption, human resource cost, etc.).

**The second part focuses** on MSMEs' readiness to embrace CE strategies and opportunities, categorized into six groups of CE strategies of (i) increase resource efficiency, (ii) extend the lifetime of products, (iii) shift to service-based models, (iv) recovery after disposal, (v) shift to circular supplies, and (vi) facilitate demand for circular products and services. Each group of CE strategy is connected to the relevant stage of the product lifecycle (product (re) designing, procurement, manufacturing/production, sales and marketing, product use/consumption, and post-consumption). Active engagement of MSMEs throughout all stages of their product's lifecycle empowers them to recognize the potential economic, environmental (climate, ecosystem, hazards), and social (employment, gender) associated with each stage. This assessment also employs, as suggestions, the 9R principle (Reject, Rethink, Reduce, Reuse, Repair, Renovate, Remanufacture, Reuse, Recycle, Recover) to explore opportunities along the supply chain and different stages of the product cycle.

MSMEs of the same or different sectors can exchange knowledge and information with each other, with research institutions, and through partnerships and collaborations. They can also access technology and financing, external support for other projects,

and consulting services from external firms. However, the most important factor is the MSMEs' motivation to implement circular practices, especially the desire to initiate change and take active measures.

For the final consumer group, referred to as the **"Demand side"**, 100 tourists participated in the assessment, of which 20% were foreign tourists who had traveled to Mongolia in the last two years, and 80% were domestic tourists. They were accessed by their behavior towards reduction of the negative environmental impact of tourism, and by six groups of CE strategies: (i) increase resource efficiency, (ii) extend the lifetime of products, (iii) habits and consumption, (iv) recovery after disposal, (v) shift to circular supplies, and (vi) facilitate demand for circular products and services.

## 4.2 MAIN FINDINGS

### A. SUPPLY SIDE

Readiness to adopt CE solutions implies that MSMEs must have a certain level of knowledge about CE and sustainable development. The readiness assessment findings indicate that 6.5% of assessed producers knew well about the concepts of CE and green development, while 66.8% had some knowledge or had heard of these concepts. In contrast, 26.8% of participating producers had never encountered CE. Notably, there were no significant differences observed between the two groups of producers and service providers. Participants' understanding of CE concepts was primarily centered around "waste sorting and recycling."

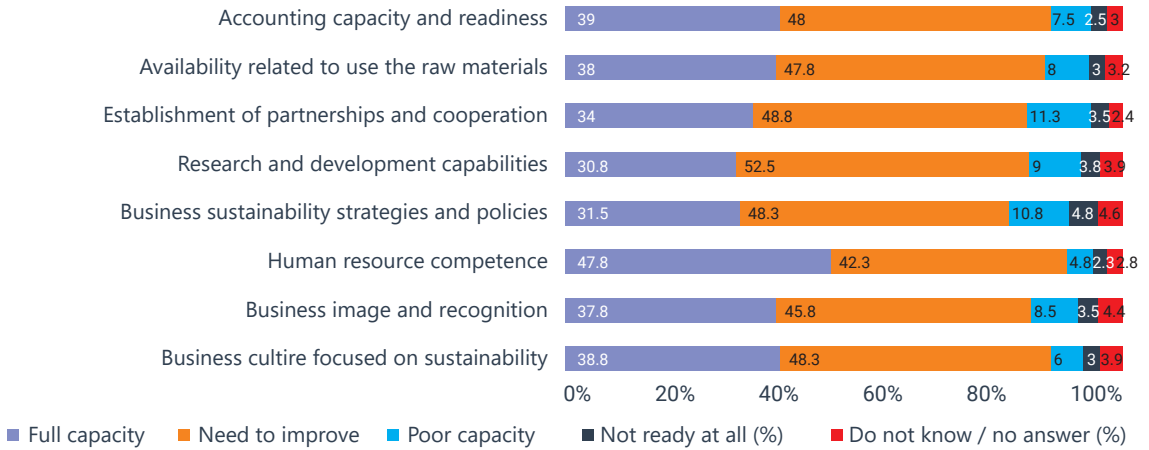
Of the 11 elements assessed, finance/capital, technology and equipment, and assets (buildings, structures, and real estate) were found to have the lowest readiness levels. Conversely, readiness to establish partnerships and cooperation, accounting capacity and readiness, and a business culture focused on sustainability were rated the highest. Interestingly, MSMEs exhibited similar levels of readiness for CE adoption regardless of their income level or years in operation. On average, MSMEs in Ulaanbaatar showed higher readiness compared to those in local provinces. The assessed enterprises were categorized as follows: 28% had "full capacity," 50.5% needed improvement, 10.8% had poor capacity, 5.3% were not ready, and 4.5% were unable to assess their readiness about assets.

In many tourist destinations, accommodation services face energy supply challenges due to a lack of infrastructure connectivity, and

semi-infrastructure solutions are often costly. These conditions result in resource inefficiency for accommodation services. Recently, there has been a growing trend in applying passive houses in tourism services, thanks to increased financial support through "green loan" opportunities. Promoting passive houses presents an opportunity to adopt CE strategies, emphasizing resource efficiency, reduced heat loss, and extended accommodation lifetimes.

In terms of readiness, 28% of participants reported full capacity, 52.8% identified a need for improvement, 9.3% had poor capacity, 6.5% were not ready, and 3.5% responded with "do not know." MSMEs face equipment limitations when embracing CE concepts and strategies, mainly due to financial constraints. Additionally, the digital transition progress among MSMEs is slow due to insufficient digital literacy. Among participants, 20.8% had full capacity, 53.5% required improvement, 15.8% had poor capacity, 5% were not ready at all, and 5% were unable to assess their readiness for adopting CE.

Figure 4. Summary of readiness assessment



### Involvement in Product and Service Lifecycle stages:

The majority of MSMEs within the producer group are primarily engaged in manufacturing operations (68%) and sales and marketing activities (42.3%) phases. Across all sectors, the influence on product design remains low (24.7% of participants in the food industry and 40% in the beverage industry). In the liquid food sector, the emphasis is largely on the purchasing stage. Approximately 80% of the focus lies on the sales and marketing phase. The food industry is more active in procurement, production, sales and marketing stages. They typically adhere to the conventional business model of supply-side (encompassing procurement, manufacturing, and sales and marketing).

For the intermediate user group, involvement in product (service) cycle stages is approached from a service perspective. Most companies in the intermediate user group allocate greater focus to sales and marketing (28.7%) and product development and services (26.2%), with relatively less involvement in other stages. When examining the intermediary user group categorized by their activity types, it becomes evident that this group exhibits a nearly consistent level of engagement in the

design, use, and post-use phases of products and services, ranging from 12.5% to 25%. The purchase stage, on the other hand, displays the highest participation rate among grocery stores at 44.1%, Service providers offering hotel rooms and camping exhibit a notably high percentage in these fields (making and offering services) at 58.6%.

Given that MSMEs often fail to encompass the entirety of the product life cycle within their business operations, the comprehensive assessment of economic, environmental, and social impacts across each stage (including related services), notably during design and post-use stages, remains elusive. Consequently, the potential for integrating strategies and solutions aligned with the principles of the circular economy is neglected, thus limiting the prospects for systematic integration. This predicament hinders the seamless adoption of CE practices.

For the Product (re)design stage, manufacturers have the opportunity to explore and implement tailored CE solutions for each stage of a product’s lifecycle. Around 24.7% of MSMEs operating within the food industry were involved in efforts related to product and service redesign. In comparison, for MSMEs

in the beverage, and packaging sector, the engagement rates in product and service (re) design were significantly higher, standing at 40% and 33.3% respectively. Companies situated in rural areas for both groups are relatively more engaged in the redesign stage, accounting for 31.9% and 26.3% participation rates. These figures can be indicative of companies' design capabilities and the demands placed upon their products by customers.

In the Procurement stage, the producer group is closely linked to the "Putting supply into the circle" strategy, which involves sourcing resources, materials, and energy from sustainable sources. In many cases, exploring more sustainable and CE-compatible solutions should begin at the design stage. Service providers, on the other hand, focus on circular and sustainable sourcing of resources, materials, and energy. They often engage with multiple suppliers when procuring products and adopting new CE business models. The feasibility of CE solutions also relies on market readiness.

In the Production stage, the majority of MSMEs are involved in manufacturing, making up 68% of the participants. Specifically, the food industry accounts for 72.6%, while service providers (making food) make up 67.4%, and the packaging industry contributes 66.7%. However, only 20% of beverage companies mentioned their engagement in the production stage among MSMEs. Interestingly, the proportion of companies involved in product production in rural areas (70.2%) exceeds that in urban areas (67.4%). This emphasis on the production stage aligns with the priority of focusing more on resource efficiency for MSMEs.

In the Sales and marketing stage, for the producer group, the sales and marketing participation ranked second after the production stage and is responsible for 42.3% of MSMEs. 33.3% of packaging and beverage manufacturers are heavily involved in this stage (the highest percentage among other lifecycle stages). Companies in urban areas are 5% more involved in sales and marketing than those in rural areas, and firms with more employees take this step more seriously.

In the Product use or Consumption stage, this stage holds relatively little relevance to the producer and service providers group. However, it is most relevant to the final consumer group.

In the Post-consumption stage, the engagement of assessed MSMEs in the producer group was notably low, with only 20.3% involved. This low participation can be attributed to the fact that only a minority of them are active in post-consumer activities such as packaging, collection, sorting, and processing of end-of-life products, including food and various solid waste types. Among manufacturers, packaging MSMEs demonstrated the highest involvement in this phase at 16.7%, while the food industry had the lowest participation rate at 7.9%. Slightly over 9% of MSMEs indicated some level of activity related to the post-consumer stage, regardless of their total number of employees.

### **Strategies to increase resource efficiency**

In general, businesses should be mindful of zero-waste policies, particularly concerning plastic waste. They should also strive to prolong the lifespan of equipment, grasp the concepts of resource efficiency (RE)

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and clean production (CP), opt for energy-efficient equipment to curtail fuel and electricity consumption, and employ economical vehicles for conserving resources and energy. A comprehensive understanding of RECP entails the promotion of judicious consumption. This is underpinned by the longstanding introduction of resource-saving principles in Mongolia, potentially driven by the endeavor of equipment and machinery manufacturers to bolster resource efficiency. However, it's worth noting that 61.3% of companies reported a lack of mechanisms for calculating resource savings and net production. This discrepancy underscores a divergence between the level of awareness and the actual implementation of RECP within these sectors.

Manufacturers lack substantial familiarity with systematic auditing and the execution of the RECP approach. Approximately 34.3% of service providers have undertaken assessments related to RECP, yet merely around 58% have intentions to incorporate a RECP program into their operations.

Urban service providers exhibit a greater array of RE options compared to their rural counterparts. Furthermore, companies with larger employee counts possess a broader spectrum of RE options in contrast to those with fewer employees.

### **Strategies for extending the lifetime of products**

These CE strategies are more suitable for the packaging industry, with some applicability to food and beverage packaging. Collection of product packaging has been attempted but faces logistical and consumer behavior challenges, with only a few regular customers returning packaging. In the producer group, equipment lifespan is extended through

repair (83.8% of respondents) and regular maintenance and better-quality items are procured. For service providers, extending the lifetime of products also means to support prolonging the lifespan of equipment, furniture, and packaging products. They offer options for customers to reuse product packaging (59.6% of respondents), while only 21.3% engage in activities to reuse or recycle their packaging materials

### **Strategies for shifting to a service-based model**

The circular economy brings about a transformation in the conventional business approach by introducing a model that prioritizes providing services over merely selling products. The challenges tied to the adoption of new circular economy business models, such as asset and equipment sharing, service-based offerings, and ventures related to waste collection and recycling, are quite evident. Among the assessed MSMEs, 25.2% revealed their practice of sharing equipment with others, potentially driven by their involvement in service-oriented activities. It's possible that the product-service concept might not be fully comprehended by the respondents.

### **Strategies on recovery after disposal**

The understanding of the CE of the assessed MSMEs is mainly focused on waste management. 50% of manufacturing MSMEs have introduced waste management systems that have activities such as waste collection and sorting. Only 22.5% of MSMEs have acquired a system to support waste recycling, and about 35.6% provide training to employees in the field of waste management. Companies in urban areas have opted for more responses to post-disposal rehabilitation than those in rural areas.

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## Strategies on shifting to circular supplies

In general, assessed MSMEs possess a moderate understanding of their supply sources and are open to adopting more sustainable input materials and eco-friendly energy sources. Among the packaging materials used, plastic bags are the most common, accounting for 76.1%. Recycled paper, plastic, glass, and paper bags are also utilized. About 8.6% of assessed MSMEs use natural materials as packaging materials. Small rate (4.1%) MSMEs are using energy from solar power.

## Strategy to facilitate demand for circular products and services

Among the producer group, 87.4% of participating MSMEs engage in waste sorting to support recycling, while in the service providers group, 84.8% opt for waste sorting. Additionally, 86.9% of producers request sustainability information from their suppliers, with 60.4% regularly sharing this information with their partners and customers. Among service providers, 83.7% commonly request product sustainability information from their suppliers.

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## B. DEMAND SIDE

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To reduce the negative environmental impact of the camps they stayed in, travelers expressed several preferences: 63% emphasized the need for separating recyclable waste and sending it to recycling centers, 36% highlighted the importance of proper waste disposal in treatment facilities rather than open dumping into rivers, and 32% suggested the installation of information boards and reminders for visitors to respect nature.

### Strategies to increase resource efficiency

The assessment participants prioritize activities aimed at increasing resource efficiency, with 93% favoring measures such as efficient natural resource utilization, waste reduction, and sustainable water and electricity production. Additionally, 88% are aware of zero-waste policies, particularly related to plastic waste, and 82% prefer vehicles with higher fuel and electricity efficiency, while 66% support initiatives for enhanced natural resource efficiency and waste reduction, along with efficient water and electricity production.

### Strategies for extending the lifetime of products

It's noteworthy that 90% of respondents indicated that they engage in reusing containers and packaging materials. Additionally, 83% of producers make efforts to improve the durability of their products, and 79% encourage customers to repurpose product packaging, highlighting a strong emphasis on reuse.

### Strategies for shifting to a service-based model

It should be noted that this group of strategies is not fully aware by respondents as they are more relevant to the supply side.

### Strategies for recovery after disposal

When asked about the impact of eco-friendly products and services on their purchases, 86% of travelers stated they would consider them if a waste recycling management system was in place. Similarly, 85% mentioned they would consider such products and services if a waste sorting management system existed, and 81% would be influenced if there was a packaging return system.

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Additionally, 79% expressed interest if there was a waste collection management system. This suggests that travelers are interested in waste recovery management systems. However, service providers currently lack a waste sorting management system in place.

### **Strategies for shifting to circular supplies**

When purchasing liquids, 85% of respondents considered the ingredients and safety of products and services. However, 76% of them also took into account the reusability and recyclability of packaging. Notably, the packaging commonly used for liquids in Mongolia includes recyclable plastic bags, packaging, and glass.

### **Strategy to facilitate demand for circular products and services**

Finally, consumers highly value eco- and environmentally-friendly products and services from tourism providers and food producers. However, there is a significant gap in the tourism sector when it comes to waste sorting, recycling activities, and sustainable production. From the assessment, 77% of travelers carry their trash bags, 70% take their trash to the nearest designated point, and 34% throw it into a trash can at a designated point for trash disposal.

Travelers prioritize waste-free and environmentally friendly offerings in the tourism industry, with 98% considering it important. Yet, despite consumer emphasis on sustainability, service providers and manufacturers are not adequately prepared to meet these demands. Additionally, 91% of travelers would be moderately or highly influenced by the availability of eco-friendly products and services at their accommodations.

A majority of travelers (73%) express a willingness to pay more for environmentally friendly products and services. However, 45% find it challenging to locate eco-friendly businesses, while 44% consider it moderately challenging, indicating a limited presence of environmentally friendly offerings in the market.

Travelers' expectations from MSMEs in the tourism sector include a 46% expectation for the adoption of green technology, 34% for transitioning to eco-friendly practices, 28% for implementing a zero-waste economic model, and 27% for increasing social responsibility.

Table 1. Summary of key strategies for implementing the circular economy model

KEY STRATEGIES FOR IMPLEMENTING THE CIRCULAR ECONOMY MODEL		
<p>1. Strategies to increase resource efficiency: (10)</p>	<p>3. Strategies for shifting to a service-based model: (3)</p>	<p>5. Strategies for shifting to circular supplies: (14)</p>
<ul style="list-style-type: none"> <li>• 61.3% of manufacturers lack a mechanism to calculate resource savings and net production.</li> <li>• This highlights a gap between awareness and the actual implementation of Resource Efficient Clean Production (RECP) across industries</li> <li>• Housing providers enjoy a broader range of options and opportunities.</li> <li>• Given their workforce size, large factories are well-positioned to produce clean and resource-efficient products.</li> <li>• Urban service providers have a greater array of resource efficiency (RE) options compared to their rural counterparts.</li> </ul>	<ul style="list-style-type: none"> <li>• 25.2% of respondents share their equipment with others</li> <li>• Manufacturers use online stores and delivery services, avoiding the use of their own vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>• The supply chain shift encompasses raw materials, resources, and energy.</li> <li>• More than 91% of respondents prefer environmentally friendly, green, or waste-free resources (materials, products, services) and organic food.</li> <li>• Manufacturers predominantly use plastic bags (76.1%) as packaging material.</li> <li>• Approximately 8.6% of respondents in MSME utilize natural materials for packaging.</li> <li>• Coal-generated electricity is the primary energy source for energy consumption.</li> </ul>
<p>2. Strategies for extending the lifetime of products: (3)</p>	<p>4. Strategies for recovery after disposal: (5)</p>	<p>6. Strategy to facilitate demand for circular products and services: (4)</p>
<ul style="list-style-type: none"> <li>• Approximately 50% of MSME assessment respondents are adopting a feasibility study strategy to extend the lifespan of their products. Nevertheless, recycling and reusing packaging materials remain a challenge, with 80.2% of participating MSMEs not engaging in these practices.</li> <li>• Manufacturers are making efforts to collect product packaging, facing challenges stemming from logistics constraints and consumer behavior factors.</li> <li>• The packaging industry holds the highest potential for extending product life.</li> <li>• The most common method, chosen by 83.8%, is repairing the equipment.</li> </ul>	<ul style="list-style-type: none"> <li>• MSMEs' understanding of CE primarily focuses on waste management.</li> <li>• 50% of MSMEs have implemented waste management systems, encompassing waste collection and sorting.</li> <li>• 22.5% have created an environment to support waste recycling.</li> <li>• Approximately 35.6% provide training to employees in the field of waste management.</li> <li>• 92.3% of them dispose of their waste in landfills.</li> </ul>	<ul style="list-style-type: none"> <li>• 87.4% of respondents in MSME separate their waste.</li> <li>• 86.9% of respondents ask their suppliers for information on the sustainability of their products.</li> <li>• 60.4% regularly communicate with partners and customers using this information.</li> <li>• Only 32.9% take specific actions to retrieve their recyclable products.</li> </ul>



# **FIVE. STAKEHOLDER ASSESSMENT**

## FIVE. STAKEHOLDER ASSESSMENT

The Stakeholder assessment provides a broad overview of stakeholder perspectives on the role of CE in fostering collaboration within the tourism sector. In the Mongolian tourism sector, various stakeholders play vital roles in its development and sustainability. They collectively contribute to the growth and management of the industry. The stakeholder assessment has been conducted with an MSME-centric view to ensure that all efforts and initiatives align with improving resource efficiency and fostering sustainable practices in the tourism industry. This assessment has enabled the identification of those who stand to benefit most from the adoption of a CE approach in MSMEs, which are led by women engaged in the tourism industry in the country, and those who are unlikely to make a clear impact on the sector's goals. Ten (10) stakeholder groups were identified and categorized into: (1) technical intermediaries (Consultancies and certification, Academia, and Technology

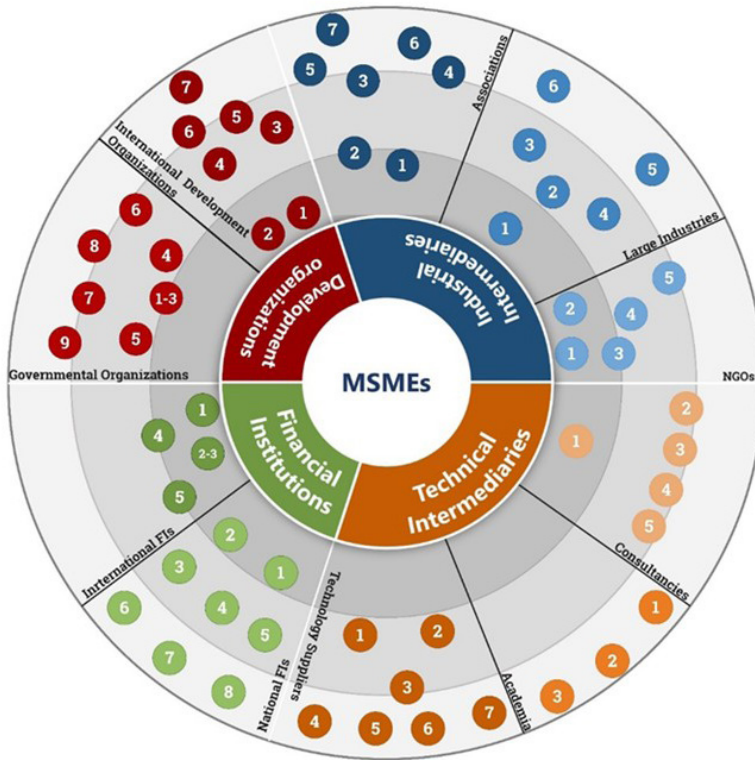
suppliers), (2) financial institutions - FIs (international and international FIs), (3) development organizations (International Developments Organizations and Government Organizations), and (4) Industrial Intermediaries (Associations, Large Industries, and Non-Governmental Organizations - NGOs).

It is important to establish scoring criteria aligned with project objectives to construct a comprehensive stakeholder map that accurately reflects crucial aspects for MSMEs. Various stakeholder mapping methods utilize different criteria. Among the most pertinent criteria selected for this project were: i. interest or willingness to collaborate, ii. expertise, iii. influence/impact, and iv. capacity for engagement (in some stakeholders) in implementing CE at MSMEs in tourism in Mongolia. Guiding questions for scoring stakeholders based on the selected criteria are shown in **(Table 2)**.

Table 2. Criteria for scoring stakeholders

CRITERIA	GUIDING QUESTIONS
Interest	What is the interest of the stakeholder in ensuring the uptake of CE practices in the food, brewery and packaging sectors in the tourism industry? Can this stakeholder directly benefit from CE practices?
Expertise	What is the expertise of the stakeholder in support, implementation or other processes of CE practices uptake?
Influence/power to the CE practices implementation	Can the stakeholder influence the capacity of the MSME to uptake CE practices?
Capacity for engagement	Does the stakeholder have a capacity for engagement in the establishment of the CE practices in MSMEs? What resources could be used for engagement?
Final score	The average of all 4 criteria

Figure 5. Stakeholder analysis mapping in tourism industry of Mongolia



The Government's interest in adopting CE practices was found to be average compared to other stakeholder groups. Among government organizations, the Ministry of Environment, Tourism Mongolia, Local Governors, and the City Tourism Department showed the highest level of interest. Other national-level stakeholders had moderate to low interest in CE, often considering economic, ecological, and social sustainability only broadly or focusing on short-term auditing and monitoring. CE-related legislation and regulations were seen as important for sustainable development.

International organizations exhibited the most significant interest in promoting CE, emphasizing economic, ecological, and social sustainability. Industry organizations,

particularly NGOs, viewed CE as a means to introduce sustainability into business logic and create holistic, sustainable value. Associations and large industries had a medium interest in establishing CE for MSMEs, with the Mongolian National Chamber of Commerce and Industry (MNCCI) leading due to its green hotel and organic certification processes.

At the FI level, there was a high interest in promoting CE and sustainability, especially among international FIs. FIs can assist MSMEs by providing affordable capital to invest in CE practices and collaborating with larger businesses and supply chain partners to enhance their capacity for CE adoption. FIs can also contribute to sustainable supply chain development.

When it comes to expertise in implementing CE practices, at the national level, government organizations had policies and regulations supporting CE practices in the tourism sector, but their direct expertise in implementing CE was relatively low compared to other stakeholders. International FIs and International Development Organizations displayed the highest expertise in implementing CE-oriented activities, viewing CE as an opportunity for sustainable development and ecological problem-solving.

Large industries saw CE as a valuable means to enhance their image, competitiveness, and vitality while also generating welfare and attracting value-based, skilled employees in the future. Their expertise mainly focused on economic and business aspects. Technical supply stakeholders were inclined to provide expertise in producing environmentally friendly products.

Academia stakeholders had the lowest expertise, lacking sufficient course programs, curricula in the CE model, and knowledge-sharing activities for students. Overall, there is a shortage of specialists, training, and research in this area.

The influence and impact on MSMEs in adopting CE practices vary across different stakeholder groups. Government organizations at the national level are supportive of creating policies and programs to help MSMEs transition to CE practices, offering financial incentives, grants, and subsidies. However, these efforts are not part of a unified national policy and are dispersed across various government functions.

NGOs and industry associations, especially in tourism, play a vital role in building MSMEs'

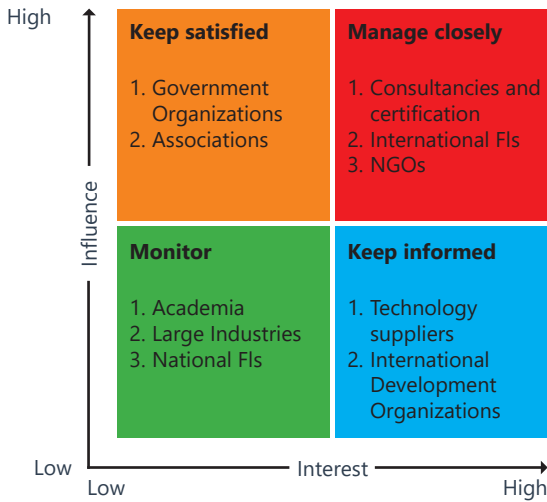
capacity for CE practices, given that many tourism-related MSMEs are voluntarily registered with these organizations, making them key partners in promoting CE within the sector.

As result from the stakeholder assessment, the stakeholders were then categorized by 4 levels of their interest, expertise, and influence for different communication strategies: (1) **“Keep Satisfied”** group including the government and associations, (2) **“Manage Closely”** comprising of consultancies and certification bodies, international FIs, and NGOs; (3) **“Keep Informed”** consisting of technology suppliers and international development organizations; and (4) **“Monitor”** covering academia, large industries, and national FIs.

In analyzing the factors supporting the transition to a CE in the tourism sector, several gaps and areas for improvement have been identified among various stakeholders. Government organizations must better integrate CE principles into national policies and strategies, with a focus on capacity building for officials to design and implement effective CE policies. It's also essential to adopt inclusive and participatory approaches, involving diverse stakeholders in the policy development process.

Table 3. Stakeholder engagement analysis

Stakeholders	Interest	Expertise	Influence
<b>Technical intermediaries</b>			
Consultancies and certification	2.25	1.83	2.16
Academia	1	0.5	0.5
Technology suppliers	2.21	1.71	1.28
<b>Financial institutions</b>			
Internationals FIs	2.8	2.5	2.4
National FIs	1.94	1.93	1.94
<b>Developing Organizations</b>			
International Developments Org	2.35	2	1.86
Government Organizations	1.75	1.21	2.4
<b>Industrial Intermediaries</b>			
Associations	1.75	1.25	2.16
Large Industries	1.83	2.16	1.83
NGOs	2.6	1.8	2.4





## **SIX. CONCLUSION**

## SIX. CONCLUSION

### OVERALL

In general, MSMEs in targeting sectors lack experience in implementing environmentally friendly practices and measuring CE progress. However, many MSMEs in these sectors prioritize economically and environmentally responsible raw material choices. While internal maintenance and cleaning practices are well-established, technological capabilities for environmental impact reduction, product (re)design, and reuse are limited. MSMEs are facing certain challenges

in introducing CE possibilities to meet the needs and interests of tourists, such as lack of economic and financial resources and access to support, limited information about recent advancements in eco-friendly technologies and global, regional, and national CE trends, absence of feasibility studies, designs, strategies, and implementation solutions, and inadequate information regarding CE and its corresponding strategies and solutions.

### POLICY ANALYSIS

The Policy Analysis revealed that it is relatively well reflected in the action plan for the implementation of goals and activities supporting green development and energy efficiency. It includes a separate chapter on promoting green development and focuses on cross-sectoral issues such as climate change, water, waste, green procurement, and green technology. In addition, the goals and activities of the Vision 2050 development policy document aligned with the short- and medium-term feasibility studies are well reflected in the 2020-2024 action program of the Government of Mongolia.

Regarding the policy objectives currently in place within the target sectors and the policy instruments supporting CE in their regulatory environment, this policy analysis has identified a total of 7 policy instruments. In detail, 2 in the cross-sector, 2 in the tourism sector, 2 in the food sector, 1 in the packaging sector, and 2 in the waste sector.

Although CE was not explicitly included in recent legislative frameworks, certain aspects of CE received some attention. CE enabling

policy instruments, such as rewarding individuals, enterprises, and organizations for introducing environmentally friendly advanced methods and technologies with Eco-label or Green Certificates, tax exemption, Green Loan Fund, certification labels for products produced with appropriate agricultural practices, or list of environmentally friendly techniques and equipment for efficient use of natural resources, reduction of environmental pollution and waste were established and approved by the Government.

However, policies to support providing incentives to encourage the adoption of CE practices in a progressive manner (green production, waste management, etc.) are still missing. Specific objectives and operational strategies or actions related to sustainable and green procurement, such as measuring and reporting indicators for achieving 20% green procurement establishing green criteria for selected products, or developing of green economy for the food sector, remain absent. Integration of CE into SME policies and the inclusion of CE support provisions

in MSME policies and requirements are also lacking.

Moreover, in the food and packaging industry, there is no standardized definition or clear direction on aligning activities, best practices, and certifications with CE principles. This lack of coordination with other incentive mechanisms weakens the effectiveness of policy instruments supporting economic development and has adverse consequences. Consequently, sectors like food service in the hospitality industry and grocery stores have limited experience in making environmentally conscious purchases (such as GAP-labeled and organic products) and adopting practices that minimize packaging waste.

Economic policy instruments have not been formulated to promote resource conservation and the prevention and reduction of pollution and waste. There was a notable deficiency in the fact that waste targets and planned activities primarily concentrated on waste reduction measures or actions taken after materials had already become waste. To achieve a comprehensive

implementation of CE, it appears that infrastructure-related aspects, aimed at conserving resources before they become waste, supporting the longevity of products, promoting new eco-friendly product types, and facilitating the economic reuse of waste, have been overlooked. Additionally, sector-specific policy tools for addressing waste, packaging, and the tourism industry are currently absent.

Policies related to information dissemination and training for promoting resource conservation, pollution prevention, waste reduction, and the regulation of economic incentives and discounts to the public have not been established. As a result, efforts focused on providing information, raising awareness, and fostering a culture of sustainability at the enterprise level should be conducted as part of dedicated corporate initiatives. These efforts should also be coordinated with other policy instruments and comprehensively approached through collaboration with professional associations and international organizations.

## READINESS ASSESSMENT

The Readiness assessment, for the supply side, with a total of 11 evaluated elements, indicates that among MSMEs in Ulaanbaatar, those with a better understanding of CE, service providers, and those with official business registrations generally demonstrate higher levels of readiness for CE adoption when compared to other enterprises. The assessment underscores the fact that MSMEs often lack a comprehensive understanding and knowledge of CE and sustainable development, with a particular emphasis on waste management. Moreover, MSMEs tend

to prioritize waste management over other groups of CE strategies, such as Extending the lifetime of products, shifting to service-based business models, Shifting to circular supplies, and Facilitating demands for CE products and services.

The assessment suggests that the majority of MSMEs in the supply side (Producer and intermediary consumers/service provider group) are not currently prepared to embrace CE strategies and implement CE solutions. Based on the data collected

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through assessment and interviews, it is evident that many of these businesses continue to react to environmental concerns and view investments in CE projects as financial burdens rather than recognizing the potential for profitability through CE practices. The establishment of clear connections between CE practices and their positive impact on profits has not yet been achieved.

From the view of consumption side, participating travelers have a certain level of knowledge toward CE and express their interest and participation in sustainable tourism, such as reducing negative environmental footprint, eco- and environmentally-friendly operations, and the taste and quality of food, waste sorting, and recycling, among others. More importantly, the assessment result reveals that tourists are willing to pay more for environmentally friendly products and services.

The Readiness assessment also has accessed the challenges and opportunities for adopting a circular economy and taking up circular economy solutions for each group through their involvement in whole lifecycle stages, by each group of CE strategies in corresponding to relevant lifecycle stages Rs of the 9Rs principles.

Overall, MSMEs in both the Producer and intermediary consumers/service provider group tend to prioritize their core business activities, such as purchasing, manufacturing, sales, and marketing, without venturing beyond their production domains, particularly in areas like product design and post-consumption stages. When MSMEs do not encompass the entire lifecycle of their business operations, it becomes challenging to assess the economic, environmental, and

societal impacts stemming from each stage of their products (and related services), with a particular gap in understanding the design and post-consumption stage. Consequently, potential CE opportunities and solutions may go unnoticed and lack systematic integration.

Based on the findings from the assessment and interviews conducted with the Producer and intermediary consumers/service provider group, it is evident that MSMEs possess a solid understanding of resource efficiency within the CE strategies of Increasing resource efficiency. They demonstrate awareness of efficient resource and energy utilization, exhibit a commitment to zero waste policies, particularly about plastic waste, prioritize the extension of equipment lifespans, and are knowledgeable about resource efficiency and cleaner production practices. Additionally, they actively employ energy-efficient equipment and more economical vehicles to reduce fuel and electricity consumption.

Within the CE Strategies on Extending the Lifetime of products, both groups of MSMEs have implemented numerous solutions in this regard, including equipment repairs and the adoption of zero-waste policies. Nevertheless, they still face challenges when it comes to recycling and reusing packaging materials.

An essential component of CE involves the emergence of new business models. CE alters conventional linear business models, with particular emphasis on the concept of servitization (CE Strategies on Shift to service-based models). This new business model is new to MSMEs as it seems confusing to assessment respondents as it might be understood as they undertake

service offering activities. Other CE business models include sharing and renting. Among these options, sharing equipment remains the most widely adopted business model among MSMEs in those sectors.

In the context of the CE Strategy focused on recovery after disposal, which aims to prevent resources from exiting the loop, over 50% of MSMEs have established waste management procedures. However, the majority of waste is currently disposed of in landfills, which is not considered a viable Circular Economy solution.

Another CE strategy, known as the Shift to circular supplies, focuses on transforming the supply chain for products or services, encompassing not only raw materials and resources but also energy sources. MSMEs display a reasonable level of awareness regarding their supply sources, showing a willingness to adopt more sustainable input materials and to transition toward the use of eco-friendly resources and energy. They tend to favor environmentally friendly, green, or waste-free materials, including organic food. However, the availability of sustainable alternatives, such as renewable energy sources, can sometimes impede MSMEs from fully embracing circular supplies.

The CE Strategy focused on Facilitating demand for circular products and services

necessitates that suppliers educate their customers and engage in communication regarding the sustainability aspects of their offerings. It appears that requesting suppliers to provide information about the sustainability attributes of their products and maintaining regular communication with their partners and customers regarding this information are common practices.

About different lifecycle stages, it is notable that MSME participation in the design stage is relatively limited, and this participation rate is even lower for the Provider group compared to the Intermediary consumers/service provider group. The latter group engages in aspects such as menu and portion design, as well as the adoption of energy-efficient equipment and new technologies to conserve energy and water when constructing facilities. However, the product development and innovation process at MSMEs turn out to be provisional, unplanned, and unstructured.

In corresponding to the 9Rs principles (Refuse, Rethink, Reduce, Reuse, Repair, Remanufacture, Repurpose, Recycle, and Recover), most MSMEs considered targeting Reduce, Reuse, Repair, Recycle and Recover, in particular Repair, Reduce, and Reuse. It is consistent with their good knowledge of RECP, and their interest in waste management.

## STAKEHOLDER ASSESSMENT

The Stakeholder assessment has been conducted with an MSME-centric view and identified 10 stakeholder groups categorized into technical intermediaries, financial institutions, development organizations, and Industrial Intermediaries. Their respective roles and their degree of contribution to

creating an enabling CE environment were assessed.

It is assessed that Government organizations play a pivotal role in shaping policy instruments and legislative frameworks that facilitate the transition to a CE. These

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stakeholders are responsible for formulating policies and establishing legislative structures that promote CE principles, even if the term 'CE' is not explicitly used. They are also tasked with enacting laws and regulations governing waste management, resource utilization, recycling, and related areas. However, Government organizations encounter difficulties in engaging and involving diverse stakeholders, including businesses, industry associations, NGOs, and research institutions. To ensure that a wide range of perspectives and expertise is considered in decision-making processes, inclusive and participatory approaches are essential. Although stakeholder engagement is crucial for developing inclusive and effective policy instruments and legislative frameworks, certain stakeholders, such as MSMEs, industry associations, and NGOs, may face limited opportunities for meaningful participation in the policy development process.

Furthermore, Government organizations encounter challenges in securing adequate funding specifically for CE research and development initiatives. Additionally, there is a lack of coordination in R&D efforts across different government departments and agencies.

Furthermore, the assessment revealed a lack of direct collaboration between technology suppliers and MSMEs. Notably, international organizations and financial institutions are actively promoting such collaboration through their projects and programs in this direction.

Research institutions and academia play crucial roles in generating scientific studies, and case studies, conducting training, and cultivating experts that enrich the knowledge

foundation of CE. Moreover, these entities can engage in partnerships with MSMEs, government agencies, and other stakeholders to share knowledge, offer guidance, and bolster the implementation of CE initiatives. Nevertheless, CE-related activities and experiences within academia are currently quite limited or nearly nonexistent.

International organizations actively engage in partnerships with governments, NGOs, and MSMEs to create and execute extensive awareness campaigns and capacity-building initiatives. Nevertheless, the promotion of networking opportunities among stakeholders from various provinces, specifically for sharing experiences and best practices in advancing the Circular Economy (CE) within the tourism sector, is currently limited. There are no direct initiatives focused on community events, workshops, or educational campaigns related to CE in the tourism sector. Furthermore, dedicated websites, portals, or information centers that provide access to pertinent CE information, case studies (best practices), guidelines, toolkits, and policy frameworks are notably absent.



## **SEVEN.** RECOMMENDATIONS

## SEVEN. RECOMMENDATIONS

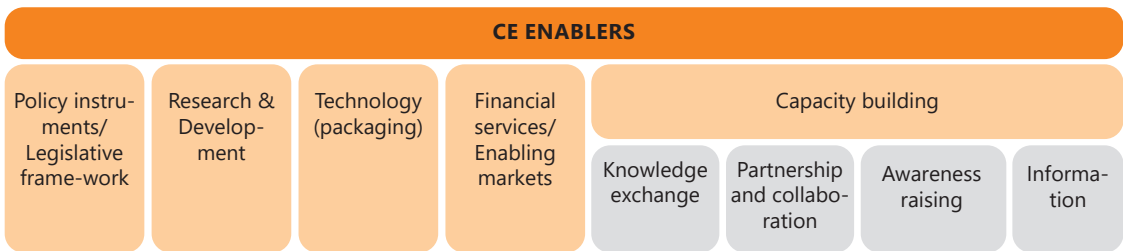
Developing targets, defining goals and developing policy measures to achieve them can provide the foundation for achieving the uptake of CE in Mongolia’s tourism industry and related sectors (food, beverage and packaging). These strategic steps lay the groundwork for realizing a more sustainable and circular tourism sector and could showcase the desired political direction for the development of Mongolia’s circular tourism ecosystem.

Additionally, it is advisable to draw inspiration from various CE examples in other countries, while customizing these solutions to align

with national and local contexts. CE initiatives necessitate collaboration among pertinent stakeholders, and it is crucial to emphasize the importance of innovation throughout this process.

The recommendations present in this chapter stem from a comprehensive analysis of CE enablers, illustrated in **(Figure 6)**. These recommendations are crafted to cater to both the broader, encompassing national strategy and the sector-specific needs (within the tourism, food, packaging, and waste management sectors) and are summarized in **(Table 4)**.

Figure 6. CE enablers



**(Table 4)** presents a strategic roadmap encompassing policy instruments and legislative initiatives. It outlines key actions, such as defining a robust national strategy tailored to the tourism sector, setting ambitious national targets for affected industries, and establishing sustainable tourism standards. Furthermore, the

recommendations extend to critical areas, including energy efficiency criteria, waste management, packaging regulations, and stakeholder engagement. These recommendations seek to align Mongolia’s policies with green goals and promote inclusive participation from all stakeholders.

Table 4. Recommendations for CE uptake in Mongolia's tourism industry

Sector/ Category	Policy Instruments/Legislative Framework
Overall	<ul style="list-style-type: none"> <li>• Define a national strategy towards a circular economy in the tourism industry. Based on the strategy, setting targets on a national level for affected sectors.</li> <li>• Develop national strategies for relevant sectors based on the priority criteria, such as urgent needs, negative impacts on the environment, human health, etc.</li> </ul>
Tourism	<ul style="list-style-type: none"> <li>• Develop comprehensive policies and regulations at the national level to support the adoption of CE practices in the tourism sector.</li> <li>• Establish sustainable tourism standards.</li> </ul>
Food and beverage	<ul style="list-style-type: none"> <li>• Set the criteria for meeting relevant goals related to energy efficiency in addition to the criteria for assessing the implementation of energy efficiency-related projects.</li> <li>• Determine the infrastructural means for monitoring and assessing of the implementation of the provisions of the Law on Appropriate Practices in the Food and Agriculture Sector through a combination of remote and on-site monitoring.</li> <li>• Coordinate with the green development goals of Mongolia's development policy goals by including the requirements related to the standardization and measurement of the 7R practices of the CE and the standardization of good agricultural and industrial practices in the regulations for selecting and rewarding the 100 best producers in the food and agriculture sector.</li> </ul>
Packaging	<ul style="list-style-type: none"> <li>• Establish Extended Producer Responsibility (EPR) for packaging.</li> <li>• Consider banning all types of single-use and non-durable packaging, while providing alternative products.</li> <li>• Strengthen policies for preventing imports of single-use plastic bags.</li> <li>• Define the CE concepts for the packaging sector and develop labeling and manufacturing standards according to the definitions.</li> </ul>
Waste management	<p>Implement the "polluter pays" principle and eco-payments along with needed documentation and systems to ensure successful implementation of thereof.</p>
Stakeholders	<ul style="list-style-type: none"> <li>• Harmonization and coordination among different policy frameworks to remove overlapping and conflicting regulations which make it challenging for stakeholders to navigate in the regulatory landscape.</li> <li>• Establish an inclusive and participatory environment for increasing MSMEs, industry associations, and NGOs' participation in the policy development process.</li> </ul>


Sector/ Category	Technology
Overall	<ul style="list-style-type: none"> <li>Using emerging digital technologies, such as big data, artificial intelligence (AI), blockchain, and the Internet of Things (IoT), amongst others (in combination with new business models) to facilitate CE transformation.</li> <li>Applying innovative technologies for manufacturing to increase efficiency while reducing the negative impacts on the environment and human health at the same time.</li> </ul>
Tourism	Use more energy-efficient equipment Apply better technologies from the building phase
Food and beverage	Introduce Best Available Techniques in food and beverage manufacturing.
Packaging	Reduce and standardize packaging types to facilitate the promotion of the reuse of packaging, reclaiming of packaging, and other similar measures.
Waste management	<ul style="list-style-type: none"> <li>Ensure sustainability of the existing waste management and recycling facilities.</li> <li>Establish new waste recycling facilities to support the increased recycling.</li> <li>Apply innovative technologies for resource recovery.</li> </ul>
Stakeholders	Increase cooperation between technology suppliers and MSMEs.

Sector/ Category	Capacity building (Knowledge exchange, Partnership and collaboration, Awareness raising and Information)
Overall	<ul style="list-style-type: none"> <li>Increase awareness, expertise, and communication efforts among stakeholders, including MSMEs, about the benefits of CE practices and the importance of sustainability in the tourism sector. Develop communication campaigns, workshops, and information dissemination channels to promote the adoption of CE practices and foster a culture of sustainability.</li> <li>Present the implementation results and impact assessment to the public</li> </ul>
Stakeholders	<ul style="list-style-type: none"> <li>Foster collaboration and partnerships among stakeholders to promote knowledge sharing, capacity building, and the implementation of CE practices. Encourage dialogue and cooperation between government organizations, associations, financial institutions, academia, and NGOs to create a unified approach towards sustainable tourism.</li> <li>Foster cooperation and direct partnerships between technology suppliers and MSMEs to facilitate the adoption of sustainable packaging technologies.</li> </ul>

Sector/Category	Research and Development
Overall	Funding opportunities for CE research initiatives should be expanded, and coordination among different organizations should be improved.
Tourism	Develop new travel tours with the involvement of local communities.
Food and beverage	Develop more products using local ingredients.
Packaging	Support research activities such as on new, biodegradable natural- or plant-based packaging materials, packaging manufacturers' needs, equipment, and information on waste generation.
Waste management	Support technological innovation for increased collection, sorting, and recycling.
Stakeholders	<ul style="list-style-type: none"> <li>• Increase knowledge sharing to foster collaboration and partnership opportunities between large industries and MSMEs for increased collaboration for the development of new technologies, products, and services that address CE challenges.</li> <li>• Engage academia in research and knowledge-sharing activities to support the implementation of CE practices.</li> <li>• Academia should enhance its engagement in CE-related activities and experiences through research, training, and partnerships with MSMEs. Government organizations can organize knowledge exchange platforms and provide support for academia's involvement in CE initiatives.</li> </ul>

Sector/Category	Financial services/Enabling markets
Overall	<ul style="list-style-type: none"> <li>• Establish clear guidance, incentives, and support mechanisms, including financial incentives, grants, and subsidies in cooperation with interest and influence high stakeholders to facilitate MSMEs' transition to CE practices.</li> <li>• Encourage financial institutions, both national and international, to develop specialized funding options for MSMEs to invest in CE technologies and improvements. Promote the availability of green loans and financial products tailored to the specific needs of MSMEs.</li> </ul>
Tourism	Add circularity-related clause when issuing loans (i.e. implementing key environmental and CE practices during the loan period.).
Food and beverage	<ul style="list-style-type: none"> <li>• Set a certain quota on the discounts and incentives provided in support of the industry, and reward enterprises that implement the principles of economic development in a graduated discount.</li> <li>• Support domestically produced products and establish competitive pricing parity with imported products, which can be achieved with different tax incentives or tax reliefs on certain products and/or by providing governmental subsidies for the products.</li> </ul>
Packaging	Support domestically produced products and establish competitive pricing parity with imported products.
Waste management	Consider providing incentives such as exemptions from VAT and customs for ongoing expenses, or incentives and budget allocation from the government based on the amount of production to increase the local waste recycling industry.



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